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10/551,803	02/22/2006	Takeshi Sakamoto	125447	6745
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EXAMINER				
ZARROU, MICHAEL C				
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/551,803

Applicant(s)

SAKAMOTO ET AL.

Examiner

Michael C. Zarroli

Art Unit

2839

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 February 2006.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-6 and 9-11 is/are rejected.
7) ☒ Claim(s) 7 and 8 is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 30 September 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/003)
Paper No(s)/Mail Date 9/30/05
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____

DETAILED ACTION

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the **min value of thickness exists in an area surrounded by the peripheral sides** must be shown or the feature(s) canceled from the claims 2, 4-6; see 112-2 rejection below. **A perspective view drawing should work.** No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR

1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action.

The objection to the drawings will not be held in abeyance.

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, **the corrosion resistant film min value of thickness exists in an area surrounded by the peripheral sides** must be shown or the feature(s) canceled from the claim 3. **A perspective view drawing should work.** No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top

margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

3. The abstract of the disclosure is objected to because of the implied language in lines 1-2. Correction is required. See MPEP § 608.01(b).

Claim Objections

4. Claim 7 objected to because of the following informalities: Antecedent problem with “a voice coil motor” in line 2. Appropriate correction is required.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 2-6 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 2 & 3 are confusing. How can the thickest value exit be along all the sides (shorter, longer & side peripheries) yet the thinnest thickness is surrounded by these sides? Should the applicant recite that the thickest values are at the **edges**? The examiner will interpret this claim as shown in figures 3 or 4.

Claim Rejections - 35 USC § 103

7. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).
8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 1-2 rejected under 35 U.S.C. 103(a) as being unpatentable over Umehara in view of Endoh et al.

Umehara discloses a permanent magnet member 13 for a voice coil motor, the permanent magnet member comprising: a magnet body 3 including a shorter periphery (fig. 1b left side), a longer periphery (fig. 1b right side) located at a position separated from the shorter periphery by a predetermined distance fig. 1b, and a pair of side peripheries (fig. 1b top & bottom) connecting the shorter and longer peripheries to each other, the magnet body having a fan-shaped planar form (col. 4 lines 62-63); and a corrosion-resistant film applied to a surface of the magnet body (col. 11 line 66 to col. 12 line 4).

Umehara does not disclose that the magnet has a thickness with a maximum and minimum value difference of between 10 to 150 μm .

Endoh discloses a permanent magnet member (various figures e.g. 1B, 5, 8A etc.) having a thickness whose maximum and minimum values yield a difference of 10 to 150 μm therebetween. At the time the invention was made it would have been obvious to one of ordinary skill in the art to modify the shape of the permanent magnet of Umehara to have varying thicknesses as taught by Endoh. The motivation for this is well known in the art and would be to adjust the magnetic

flux per the application. The claim would have been obvious because the technique for improving a particular class of devices was part of the ordinary capabilities of a person of ordinary skill in the art, in view of the teaching of the technique for improvement in other situations. Umehara in view of Endoh do not disclose the particular thickness range of between 10 to 150 μm . Regarding the particular dimensions of the permanent magnet thickness, to the extent that Umehara in view of Endoh do not specify exact dimensions, at the time of the invention, workable dimensions of the thickness would have been a matter of routine experimentation. *In re Antonie*, 559 F.2d 618 (CCPA 1977).

Variations in the distance would have been obvious minor adjustments without patentable significance. *See In re Aller*, 105 USPQ 233 (CCPA 1955)(Where general conditions of the claim are disclosed in the prior art, it is not inventive to discover optimal or workable ranges by routine experimentation).

Claim 2 (as best understood) Endoh discloses that the maximum value of the thickness exists along a peripheral part comprising the shorter periphery, longer periphery, and side peripheries; and wherein the minimum value of the thickness exists in an area surrounded by the peripheral part fig. 8A.

10. Claim 9-11 rejected under 35 U.S.C. 103(a) as being unpatentable over Umehara.

Umehara discloses a permanent magnet member 13 for a voice coil motor, the permanent magnet member being a planar permanent magnet member fig. 1b and comprising a magnet body 3 and a corrosion-resistant film formed on a surface of the magnet body (col. 11 line 66 to col. 12 line 4), the permanent magnet member having first and second surfaces opposing each other fig. 2; wherein at least one of the first and second surfaces is formed with a recess (fig. 2 left side of 3).

Umehara does not specifically disclose that a deepest part in the recess and a tangent plane thereof have a distance of 5 to 75 μm therebetween.

At the time the invention was made it would have been obvious to one of ordinary skill in the art to adjust the recess of Umehara to a certain range. The motivation for this size adjustment is well known in the art and would be to calibrate the magnetic properties in tune with the desired applications.

Claim 10 Umehara discloses that the permanent magnet member comprises a shorter periphery, a longer periphery located at a position separated from the shorter periphery by a predetermined distance fig. 1b, and a pair of side peripheries connecting the shorter and longer peripheries to each other fig. 1b, and has a fan-shaped planar form (col. 4 lines 62-63).

Regarding claim 11 Umehara does not disclose the size and thickness ranges recited where the first and second surfaces have a distance of 5 mm or less

therebetween; and wherein the corrosion-resistant film has a thickness of 5 to 60 μm . At the time the invention was made it would have been obvious to one of ordinary skill in the art to calibrate the corrosion resistant film thickness and the first and second surfaces distance to be in the ranges recited in claim 11. It has been held that where the general conditions of a claim are discovered in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233 The claim would have been obvious because the substitution of one known element for another would have yielded predictable results to one of ordinary skill in the art at the time of the invention.

Allowable Subject Matter

11. Claims 7-8 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

12. Claims 3-6 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael C. Zarroli whose telephone number is 571-272-2101. The examiner can normally be reached on 8:30 to 4:30 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, T.C. Patel can be reached on (571) 272-2800 ext 39. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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Primary Examiner, Art Unit
2839

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